

CLAIM LISTING

1. (currently amended) A method for scheduling a plurality of mobile units for data transmission, the method comprising the steps of:
- determining a plurality of mobile units that require data transmission;
  - determining power control feedback information for each mobile unit within the plurality of mobile units that require data transmission; and
  - ~~schedule~~ scheduling the plurality of mobile units for data transmission based on their power control feedback information.
2. (original) The method of claim 1 further comprises the step of determining C/I information for each mobile unit within the plurality of mobile units and scheduling the plurality of mobile units additionally based on C/I.
3. (original) The method of claim 1 wherein the step of scheduling the plurality of mobile units for data transmission comprises the step of scheduling the plurality of mobile units for data transmission over a common channel shared by the plurality of mobile units.
4. (currently amended) The method of claim 2 wherein the step of determining C/I information for each mobile unit comprises the step step of determining feedback information of a common channel.

5. (original) An apparatus for scheduling mobile units for data transmission, the apparatus comprising:

a channel statistic estimator, wherein the channel statistic estimator has power control information for a plurality of mobile units as an input and outputs a power-control statistic based on the power control information;

a scheduler having the power-control statistic as an input and outputting scheduled mobile units based on the power control statistic.

85 6. (original) The apparatus of claim 5 wherein the channel statistic estimator additionally has C/I feedback information for the plurality of mobile units as an input and outputs a statistic based on both power control and C/I information for each mobile unit.

7. (original) The apparatus of claim 6 wherein the C/I information is C/I feedback information for a common channel shared by the plurality of mobile units.

8. (new) A method for scheduling a plurality of mobile units for data transmission, the method comprising the steps of:

determining a plurality of mobile units that require data transmission;

determining a fading metric for each of the plurality of mobile units that require data transmission;

determining a priority metric based on a time a packet is queued for each of the plurality of mobile units that require data transmission;

selecting, based on the fading metric and the priority metric, a mobile unit from the plurality of mobile units that require data transmission; and

transmitting a packet to the mobile unit selected.

9. (new) The method of claim 8 wherein the fading metric is based on a voltage gain setting of a forward dedicated channel.

10. (new) The method of claim 8 wherein the fading metric is based on an accumulation of power control commands.

11. (new) The method of claim 8 wherein the fading metric is based on measured C/I feedback.

12. (new) A method for scheduling a plurality of mobile units for data transmission, the method comprising the steps of:

determining a plurality of mobile units that require data transmission;

determining a metric for each of the plurality of mobile units that require data transmission;

selecting, based on the metric, a mobile unit from the plurality of mobile units that require data transmission;

BS determining a transmission rate based on channel conditions and a coherence time left in a fade cycle; and

transmitting a packet at the transmission rate to the mobile unit selected.

13. (new) The method of claim 12 wherein determining the transmission rate comprises determining a reduced transmission rate when the coherence time left in the fade cycle indicates that a fade is probable.

14. (new) The method of claim 1 wherein the step of scheduling the plurality of mobile units comprises the steps of:

generating a metric for each of the plurality of mobile units;  
selecting, based on the metric, a mobile unit; and  
transmitting a packet to the mobile unit selected.

15. (new) The method of claim 14 wherein the metric includes a priority metric based on a time a packet is queued.

16. (new) The method of claim 1 wherein the power control feedback information comprises a voltage gain setting of a forward dedicated channel.

17. (new) The method of claim 1 wherein the power control feedback information comprises an accumulation of power control commands.

18. (new) The method of claim 5 wherein the power control feedback information comprises a voltage gain setting of a forward dedicated channel.

19. (new) The method of claim 5 wherein the power control feedback information comprises an accumulation of power control commands.

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